

WHAT IS CLAIMED IS:

1. A process for preparing an electronic package comprising:
providing a ceramic housing defining an internal cavity for receiving a micro device and
having one or more interface portions;
treating said housing to form a tungsten layer on said interface portions; and
overlaying a palladium layer on said tungsten layer.
2. The process of claim 1, wherein said tungsten layer is formed by applying tungsten to said interface portions using a thick film technique.
3. The process of claim 2, wherein said tungsten layer is formed using a high temperature co-fired ceramic technique.
4. The process of claim 1, wherein said tungsten layer is a about 0.0005" to about 0.0015" thick.
5. The process of claim 1, wherein said palladium layer is applied to said tungsten layer electrolytically.
6. The process of claim 5, wherein said palladium layer is about 25 micro-inches to about 150 micro-inches thick.
7. The process of claim 1, further comprising applying a protective coating to said palladium layer.
8. The process of claim 7, wherein a solderable interface is provided at said interface portions, said solderable interface consisting essentially of said tungsten layer, said palladium layer, and said protective coating.

9. The process of claim 1, further comprising disposing said micro device in said cavity and placing a lid on said housing along said interface portions and exposing said housing to temperatures sufficient to reflow said palladium layer to form a solder seal between said housing and said lid.
10. A housing for a micro device, said housing comprising:
a ceramic housing defining a cavity for receiving said micro device and having one or more interface portions;
a tungsten layer on said interface portions; and
a palladium layer overlaying at least a portion of said tungsten layer.
11. The housing of claim 10, wherein said housing comprises a ceramic selected from the group consisting of aluminum oxide and alumina nitride.
12. The housing of claim 11, wherein said housing has one of the following configurations annular disk, cylinder, cup-shaped, rectangular, or slab.
13. The housing of claim 12, wherein said housing is integrally formed.
14. The housing of claim 10, wherein said palladium layer covers essentially the entire tungsten layer.
15. The housing of claim 14, wherein said palladium layer is 100 micro-inches thick.
16. The housing of claim 10, wherein said housing defines at least one passage between said outer surface and said cavity, said passage being filled with a conductive material.

17. A micro device package, said package comprising:
 - a housing comprising at least
 - a ceramic housing defining a cavity for receiving said micro device and having one or more interface portions;
 - a tungsten layer on said interface portions; and
 - a palladium layer overlaying at least a portion of said tungsten layer;
 - a micro device disposed in said cavity; and
 - a lid forming a seal with said housing along said interface portions of said housing such that said housing is hermetically sealed.
18. The housing of claim 17, wherein said lid is optically transparent.
19. The housing of claim 17, wherein said lid is optically opaque.
20. The housing of claim 17, wherein said micro device is electrically coupled to said lid.
21. The housing of claim 17, wherein said housing is annular disk defining top and bottom planar portions, said top and bottom planar portions being said interface portions, said package further comprising a top lid on said top planar portion and a bottom lid on said bottom planar portion, said lids and said housing forming a seal along said interface portions, said package further comprising conductive plugs, one disposed between said micro device and each of said lids.
22. The housing of claim 21, wherein said plugs comprise molybdenum.